



# Montana Fish, Wildlife & Parks

MISC

P.O. Box 200701  
1420 East 6<sup>th</sup> Avenue  
Helena, MT 59620

March 12, 2002

Ladies and Gentlemen:

The City of Lewistown in coordination with the Montana, Fish, Wildlife & Parks, proposes to dredge the "Frog Ponds" to create an urban fishery in Lewistown, Montana. Appendices and additional copies of the Environmental Assessment for the Lewistown Frog Pond Dredging and Development project are available from the Montana Fish, Wildlife & Parks, Lewistown Area Office, P.O. Box 938; 2358 Airport Road or by calling (406) 538-4658. Comments will be accepted until 5:00 PM April 17, 2002. All comments regarding this project should be sent to Anne Tews, Montana, Fish, Wildlife & Parks, P.O. Box 938, Lewistown, MT 59457. If you have any questions, please contact Anne Tews, Fisheries Biologist at 538-4658 ext. 227.

Sincerely:

Tom Reilly  
Assistant Parks Administrator

Ferguson

## **Lewistown Frog Pond Dredging and Fishery Development**

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## Department of Fish, Wildlife and Parks ENVIRONMENTAL ASSESSMENT

**Project Title:** Lewistown Frog Pond Dredging and Fishery Development

**Description of Project:** Dredge the frog ponds to provide a recreational fishery. The project will be completed by the city of Lewistown in coordination with Montana Fish, Wildlife and Parks (MFWP).

### PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u>  Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?			X			Page 14
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			X			Page 14
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other						

### PHYSICAL ENVIRONMENT

2. <u>AIR</u>  Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))			X			Page 14
b. Creation of objectionable odors?			X			Page 14
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. <u>For P-R/D-J projects</u> , will the project result in any discharge which will conflict with federal or state air quality regs? (Also see 2a)		X				
f. Other						

### PHYSICAL ENVIRONMENT

3. <u>WATER</u>  Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X			Page 14
b. Changes in drainage patterns or the rate and amount of surface runoff?			X			Page 14
c. Alteration of the course or magnitude of floodwater or other flows?			X			Page 14
d. Changes in the amount of surface water in any water body or creation of a new water body?			X			Page 14
e. Exposure of people or property to water related hazards such as flooding?			X			Page 14
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?			X			Page 15
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. For P-R/D-J, will the project affect a designated floodplain? (Also see 3c)		X				Page 15
m. For P-R/D-J, will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a)			X			Page 14
n. Other:						



# **PHYSICAL ENVIRONMENT**

4. <u>VEGETATION</u>  Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			X			Page 15
b. Alteration of a plant community?			X			Page 15
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X			Page 15
f. <u>For P-R/D-J</u> , will the project affect wetlands, or prime and unique farmland?			X			Page 15
g. Other:						

## PHYSICAL ENVIRONMENT

5. <u>FISH/WILDLIFE</u>  Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?			X	Beneficial		Page 15
c. Changes in the diversity or abundance of nongame species?			X			Page 15
d. Introduction of new species into an area?			X			Page 15
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				Page 15
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?			X			Page 15
h. For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f)		X				
i. For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d)		X				
j. Other:						

## HUMAN ENVIRONMENT

6. <u>NOISE/ELECTRICAL EFFECTS</u>  Will the proposed action result in:	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Increases in existing noise levels?			X			Page 15
b. Exposure of people to severe or nuisance noise levels?			X			Page 15
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other:						

## HUMAN ENVIRONMENT

7. <u>LAND USE</u>	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
e. Other: _____						

## HUMAN ENVIRONMENT

8. <u>RISK/HEALTH HAZARDS</u>	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. For P-R/D-J, will any chemical toxicants be used? (Also see 8a)		X				
e. Other:						

## HUMAN ENVIRONMENT

9. <u>COMMUNITY IMPACT</u>	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?			X			Page 16
f. Other:						



### HUMAN ENVIRONMENT

10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u>	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify: _____		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased used of any energy source?		X				

### HUMAN ENVIRONMENT

11. <u>AESTHETICS/RECREATION</u>	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings?			X			Page 16
d. <u>For P-R/D-J</u> , will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c)		X				
e. Other:						

### HUMAN ENVIRONMENT

12. <u>CULTURAL/HISTORICAL RESOURCES</u>	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action result in:						
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. <u>For P-R/D-J</u> , will the project affect historic or cultural resources? <b>Attach SHPO letter of clearance.</b> (Also see 12.a)		X				Page 16
e. Other:						



## HUMAN ENVIRONMENT

13. SUMMARY EVALUATION OF SIGNIFICANCE	IMPACT				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will the proposed action, considered as a whole:						
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)		X				
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. For P-R/D-J, is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e)		X				Page 16
g. For P-R/D-J, list any federal or state permits required.						Page 14 page 16

Other groups contacted or which may have overlapping jurisdiction: City of Lewistown, SHPO, COE, USFWS, NRCS. The EA will be placed on MFWP web site and distributed to interested parties.

Based on the significance criteria evaluated in this EA, is an EIS required? YES / NO: No

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: Due to the scope and nature of this project, it will not have a significant impact upon the human environment and the outcome should be beneficial. The preparation of an EIS is not required for MEPA.

Duration of comment period: Comments will be accepted until April 17, 2002. Send comments to Anne Tews at address listed below.

Name, title, address and phone number of the Person(s) Responsible for Preparing the EA:

EA prepared by:

### Primary author

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## **Lewistown Frog Pond Dredging and Fishery Development**

### **1. Purpose of the Proposed State Action**

The purpose of this project is to dredge two shallow ponds historically known as the “Old Folks Ponds” and recently renamed the “Frog Ponds.” The ponds are located in a park within the Lewistown City limits and are located within two city blocks of a public school. The city location is well suited for kids and senior citizens. The ponds will be dredged to a maximum depth of 8 feet to create a viable urban fishery and to enhance wildlife values. It is anticipated that the combined volume of both ponds will increase from about 2.5 acre-feet to 4 – 6 acre-feet. The majority of the pond depth will be less than 5 feet.

### **2. Need for the Action**

Dredging these ponds will create opportunities for fishing within the Lewistown City limits. From 1954 – 1971 these ponds were stocked by the Montana Fish, Wildlife and Parks (MFWP) and served as a popular kid’s fishing area (MFWP 1999). Since the 1970’s, the ponds have not been stocked because of increasing sediment accumulation.

### **3. Background and Issue Scoping**

The Frog Ponds are part of the City of Lewistown Park System. This park was acquired by the city in 2000 when approximately 22 acres were transferred from the State of Montana (Department of Public Health and Human Services) to the City of Lewistown. The ponds were constructed in the early 1950’s.

**Current Fishery:** The ponds have silted in during the last 50 years and have not been stocked since the early 1970’s. They no longer provide much of a fishery. Brook trout, fathead minnows, white suckers, redbelly dace and longnose dace were sampled in Little Casino Creek near the ponds in 2000 - 2001. In 2000, 7 brook trout that ranged from 2.5 – 10.5 inches were captured by electrofishing in a 230-foot stream reach. The City of Lewistown would like to re-establish a fishery in the ponds with a focus on kids and seniors. Recreation enhancement has already begun in the area. In September 2000, a trail system was built around the ponds (Appendix 1). These trails provide handicapped access from the south side of the park to both ponds. Trails are the only existing improvements at the park.

#### **3.1 Location**

The ponds are located in Fergus County, section 15, T15N R18E on Little Casino Creek a tributary to Big Spring Creek. Big Spring Creek enters the Judith River about 23 miles downstream from the mouth of Little Casino Creek. Several ponds are located upstream on private and USFWS lands (Appendix 1 and 2). The drainage area of Little Casino Creek above the Frog Ponds is approximately 2500 acres.

#### **3.2 Laws, Goals, Directives, Interrelationships**

##### **A. Fisheries Management Authorities**

The Montana Legislature enacted Sections 87-1-2-1 (3), MCA which grants MFWP “...the exclusive power to spend for the protection, preservation, and propagation of fish...” MFWP has developed a vision for the future as we enter the 21<sup>st</sup> century. Goal B states: “Provide quality opportunities for public appreciation and enjoyment of Fish, Wildlife and Parks resources. The MFWP’s six year operations plan (2000 – 2006) for the Fisheries Program indicates the need for urban fisheries by objectives to “develop/implement fish management plans for waters in urban areas...” and to “Develop urban fishery sites...”



Restoration of the Frog Ponds falls within the statutory responsibilities of the agency and within the directives from recent planning efforts.

## **B. MEPA and NEPA**

MFWP must comply with laws and implementing rules for MEPA and NEPA. Through this Environmental Assessment (EA) MFWP is concurrently complying with MEPA/NEPA and state and federal requirements for historic preservation as described below in Section 3.2 C.

MEPA, under which public participation and this EA process is occurring, requires state agencies to perform an environmental analysis for projects and other major actions of state government significantly affecting the quality of the human environment. State agencies prepare EA's to determine whether a project will have a significant effect on the environment. If the agency determines that a project will not have a significant impact, the agency may issue a Decision Notice and proceed based upon the results of the EA. If the agency determines that the project will have a significant impact that is not otherwise mitigated, the agency will prepare a more detailed environmental impact statement (EIS) before making a decision to proceed.

NEPA, under which public participation and this EA process is concurrently occurring, is applicable because Federal Aid in Sport Fish Restoration funds (Wallop-Breaux) are proposed to be used for the project. The state agency, MFWP, conducts the NEPA review on behalf of the U.S. Fish and Wildlife Service (USFWS), Federal Aid Division, in Denver, Colorado. However, the USFWS is the decision-maker and has the authority to either issue a Finding of No Significant Impact (FONSI) based on the results of the EA, or require that an EIS be prepared.

## **C. Historic and Cultural Resource Protection**

Under both state and federal historic preservation statutes and regulations, MFWP and USFWS, respectively, are required to determine whether the proposed project will adversely affect an historic structure or property. If MFWP determines that the project will adversely affect such a property, we must enter into a memorandum of agreement (MOA) with the federal and state historic review agencies to implement mitigation measures.

As this EA explains in Section 6.10, Historic and Cultural Resources, MFWP believes that this project will not impact historic resources. A cultural resource inventory report was completed which indicated that the project would have a low likelihood of impacting cultural resources (Appendix 3).

Two of the applicable statutes that are addressed by this EA include:  
Section 22-3-424, MCA duties of state agencies for identifying and preserving historic properties and  
Section 106, National Historic Preservation Act of 1966

### **3.3 Issue Scoping**

MFWP and the City of Lewistown have held several meetings that discussed the proposed project with citizens and local government officials. All meetings were held in Lewistown, MT. MFWP officials from Helena, MT and Region 4 met with the City of Lewistown, city commissioners, elected officials and other interested parties on February 24, 2000 and on October 3, 2000. On June 14, 2000, about 20 people attended the City of Lewistown Park Board public meeting concerning dredging of the ponds. Newspaper articles have also called attention to the proposed project.

The following issues were discussed during public scoping:

- Dam Safety
- Number of Ponds to Dredge (one or both ponds)
- Type of dredging equipment to be used

- Wetland inventory/assessment
- Maintenance and Operation Plan for Frog Pond Area
- Handicapped Access and new trail
- Disposal of excavated fill
- Bypass of water around ponds during construction
- Watershed assessment to address potential future siltation of pond
- 

The Montana State Historical Society (SHPO) was contacted to determine if there are potential impacts to historic and cultural resources in the Frog Pond area. They determined it was unlikely there would be impacts to these resources (Appendix 3). Because Wallop-Breaux funding will also be used in this project, the USFWS, Federal Aid Division in Denver has been contacted. A wetlands determination was completed by Bill Berg of the USFWS, Charles M. Russell Refuge, which states that there would be long-term habitat improvement due to this project (Appendix 4).

#### **4.0 DECISIONS TO BE MADE/SCHEDULE**

The following schedule lists decisions to be made, including the environmental review and public involvement processes for MEPA, NEPA and Section 106 of the Historic Preservation Act of 1966. The construction will be a two-step process. The Upper Pond will be deepened in 2002 and the lower pond deepened in 2003.

February 2002	Signed Memorandum of Understanding between city and MFWP
February 2002	Draft MEPA/NEPA EA document advertised and distributed for public review including a public meeting.
March 2002	City of Lewistown applies for 124 permit (Stream Preservation Act) and a DEQ 319 authorization.
March 2002 or earlier	NEPA document sent to USFWS along with grant proposal for request for Federal Aid funding of project. USFWS sends draft FONSI to agencies for comment and approves project (*or decides that an EIS must be prepared).
March 2002	MFWP addresses comments, revises EA if appropriate and issues a MEPA decision notice (*or decides that an EIS must be prepared).
April 2002	Pull stop logs (upper pond) for 90 – 120 day dry-out
July 2002	Award contract for upper pond
August 2002	2 week construction begins
September 2002	Construction substantially complete (upper pond)
April 2003	Drain lower pond for 90 – 120 day dry-out
July 2003	Award contract for lower pond
August 2003	2 week construction begins
September 2003	Construction substantially complete on lower pond

\*Note: If either MFWP or the USFWS determines that an EIS must be prepared, a much more lengthy process would be undertaken and a number of months would be added to this schedule.



## **5.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION**

The City considered several different alternatives, which are discussed below. A feasibility study (Jones 2001) was done which offered several variations of completing the project without drying out the ponds. Alternative 2 and 3 evaluate two variations of those options. After the feasibility study was completed, another option, drying out the ponds and using standard equipment was considered. Drying out the ponds was voted by the Lewistown Park Board to be their proposed action on October 27, 2001. Work will be done with a combination of contracted and city crews. In all but the No Action Alternative, a handicapped-parking site will be constructed at the south end of the property and at least one disabled fishing location will be provided at both ponds. The trail will be made accessible from the parking area to the disabled fishing locations. Feasible alternatives include the following:

1. Drain ponds and allow to dry and excavate with standard equipment– Proposed action
2. Dredge with an excavator and deposit silt in lowland area
3. Dredge with floating hydraulic dredge and deposit silt in upland area
4. No Action

Jones (2001) looks at various combinations of Alternatives 2 and 3 (e.g. floating dredge and lowland spoil). In addition dredging only one pond was judged a feasible option. However, the benefits were about half those of dredging both ponds. Moving wet fill off-site was determined to be too expensive to be a viable option. In all cases, the pond under construction and the adjacent trail would need to be closed during actual construction.

### **5.1 Alternative 1 (proposed action) - Dry out both ponds (during consecutive years) and use conventional equipment**

The benefits include the short 2-week job duration, use of conventional equipment that can be furnished and operated by the City of Lewistown, the ability to keep the cost of the project low enough that new outlet pipe structures can be installed and removal of sediment off-site. The drawback to this alternative is leaving the ponds dry for several months. Bill Berg (personal communications) of the USFWS developed this alternative and the USFWS has successfully completed several projects using this method.

Appendix 5 provides details for the proposed action. The ponds would be dredged in consecutive years. Each pond would be drained about 4 months prior to construction to allow the sediments to dry out. After the ponds have dried out, approximately 3000 cubic yards of fill would be removed from each pond with conventional equipment. The ponds will be dug to about 8 feet maximum depth. During construction Little Casino Creek will be bypassed around the project area. The fill will be hauled off-site, where it would be graded and seeded or stockpiled for future use. The City of Lewistown proposes to temporarily stockpile the fill at the City of Lewistown storage site adjacent to Marcella Road, about 2 miles from the Frog Ponds. The city will take responsibility for the fill. Fugitive dust will be contained at the city storage site. Silt fence and other control measures will be used as needed to prevent erosion.

Agri Drain inline water level control structures (8 feet by 24 inches) would replace the current flow-through pipes on the dam (Appendix 6). Installation of a new structure allows for future drawdowns, either for dredging or to rejuvenate the wetlands for wildlife. The new structure will have a locked cover, which will be much safer than the existing culvert and will pass similar water volumes to the existing structure. Once installed, the dam will be finished to grade. The trails would be reconstructed and the dam flattened to allow easy access to fishing. The cost to complete the project on both ponds is approximately \$100,000.

### **5.2 Alternative 2 - Dredge both ponds using an excavator and deposit silt in lowland area**

The ponds would be dredged by a 60-foot extended reach track hoe excavator (Jones 2001). Little Casino Creek would be diverted around both ponds using a pump and irrigation pipe. The ponds would be dewatered

with pumps. Up to 1200 cubic yards of pit run gravel would be temporarily imported to construct causeways for equipment access. The causeways would be removed as pond excavation progressed.

Pond silt would be loaded into conventional dump trucks and would be deposited on the bottomland meadow north of the ponds. Two-feet of topsoil would be excavated to build a perimeter dike to hold in the wet mud. When excavation was complete the topsoil dike would be spread over the sediment and re-seeded. About 160 feet of the existing Chokecherry Trail system would need to be reinstalled and up to another 800 feet would need to be repaired. It would take about 3 weeks to complete excavation on both ponds. Cost for both ponds was estimated at \$96,000. The smell from the excavated mud may bother neighbors and the USFWS was concerned with the impacts of depositing 10,000 yards of fill in the bottomland meadow and building causeways for heavy equipment.

### **5.3 Alternative 3 -Use a floating dredge and deposit silt in an upland area**

In this alternative (Jones 2001) a floating dredge would be used in place of the hoe excavator and the spoil would be placed on a nearby upland site. The floating dredge would pump mud slurry from the pond to the upland site. As the mud settled, partially clarified water would be pumped back to the ponds. To maintain stream flow below the ponds it would be necessary to pump about 50% of the flow of Little Casino Creek around the project. The remaining amount of water would not be enough to create slurry for the floating dredge. City water would need to supply an additional 720,000 gallons (2.2 acre-feet) over a 2-day period to initially fill the pond. Recycling of water through the project would limit the amount of additional water. The upland spoil site would require constructing a 16-foot high dam and the removal and storage of 1 – 3 feet of topsoil. The site would then be excavated an additional 4 feet. The dam would need long-term maintenance and oversight by the city. The bottomland spoil site could also be used.

The job duration would be approximately 5 – 6 weeks. Noise would be low with the muffled floating dredge. The spoil (silt) pile would take several months to dry out before it would be possible to cover it with topsoil. About 325 feet of existing trail would be replaced with about 225 feet of trail. Cost of this option (without city water cost) is estimated at \$71,000 - \$111,000, depending on the operator of the hydraulic dredge. As in Alternative 2 the smell of the spoil (silt) pile may bother neighbors. The city does not want to accept the long-term maintenance required of this disposal site.

### **5.4 No Action**

A fishery would not be developed in the ponds. Trails would not need to be rebuilt. Wildlife value of the ponds would continue to decline as the ponds silts in over time.

## **6.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

None of the potential alternatives will have any impact on the following social and environmental resources:

- Exposure to natural hazard
- Soils, including Prime or Unique Farmlands
- Climate
- Creation of a barrier to the migration or movement of animals
- Adverse effects on unique, rare, threatened or endangered species
- Noise or electrical effects
- Conflict with Land Use
- Health Hazards
- Population and social structure in the Lewistown Area
- Employment, Industrial or commercial activity
- Changes in Public Services, Taxes or Utilities
- Alter the aesthetic character of the community
- Cultural or Historical Resources



Some of the alternatives will affect to some degree the following environmental resources and social issues

### **6.1 Physical Environment - Land Resources**

In any option the dredged material will be deposited in a site that is well above the high water mark. In the preferred option, the soil would be moved off site for use by the city as needed. In all but the No Action Alternative there will be an increase of erosion during the construction period. In Alternative 1 (proposed action) the sediment would be stockpiled off-site on city property to be used for future city projects. The city will manage the sediment to insure that fugitive dust and erosion are not problems. In Alternative 2, disturbed areas will be re-seeded and should become stabilized as vegetation establishes within a few months. Under Alternative 3, the spoil pile would not be seeded for several months to allow the sediment to dry out.

In the long-term, dredging of the ponds will be beneficial. Dredging will deepen the ponds enough to provide healthy fish populations and recreation similar to that seen from 1954 - 1971. Installation of water level control structures in the dams will make it easier to draw down the ponds to get rid of accumulated silt and to increase the productivity of the adjacent wetlands, which will benefit wildlife.

### **6.2 Physical Environment – Air**

There will be only minimal impacts to the ambient air quality as a result of the proposed project. Dust problems are expected to be insignificant during excavation due to the short construction time and since most excavated soils will be damp. The exhaust of the excavation equipment may not be detectable in the immediate vicinity. Since machinery will be operating for less than a month the temporary impact of machinery is seen as negligible.

Stockpiled spoil material will need to be managed to limit dust. Under Alternative 3 it will take several months for the spoil pile to dry out enough to stabilize with seed. During this time, dust could potentially be a problem.

Dissipating odors from the pond muck could be a problem in all but the No Action Alternative. Allowing the pond muck to dry out for several weeks as proposed should reduce the pond odor compared to other alternatives. Prevailing winds would reduce odors in Alternatives 1 and 2. Storing the sediment at Frog Pond Park would result in more on-site odor during construction.

### **6.3 Physical Environment – Water**

The proposed project will impact water quality only during construction. Turbidity will be short-lived and will not impact the productivity of this stream. All necessary permits will be obtained prior to construction. A Montana Stream Protection Act Permit (124) and a State of Montana Short Term Water Quality Standard for turbidity (318 authorization) will be required for this project and will dictate that construction minimize impacts to surface water quality. A state water discharge permit is unlikely to be needed for this project under the preferred alternative. One will be obtained if needed.

In 2001, the upper pond had a volume of approximately 0.5 acre-feet and the lower pond was estimated at about 2 acre-feet. In 1995, total volume of the ponds was estimated at 5.0 acre-feet (Appendix 7). The proposed project would result in total increases between 6,000 yards (4.2 acre-feet) and 10,000 yards (6.6 acre-feet). The total increase from 1995 would be 2 – 5 acre-feet. If the dams failed, more water would flow downstream than under the existing condition. An engineering firm inspected the dams in 2000 and recommended only minor modifications to increase dam safety (Appendix 7). At that time the volume of the ponds was thought to be about 2.5 acre-feet more than estimated in 2001. The modifications listed in the report, to improve dam safety, have been done or will be completed as part of this project. In addition, the outlet structures will be replaced.

Downstream flow will increase slightly during pond draining. Higher flows commonly occur during natural events and should not present concerns during draining. During the refilling of the ponds, Little Casino Creek will be managed to ensure downstream flow. To limit impacts on aquatic life, flow of approximately half of the base flow of 1 cfs would be allowed downstream during filling. At inflows of 0.5 cfs, it would take about 3 days to fill a 3 acre-foot pond. Water will be provided below the reservoir by either placing stop-logs in a way to ensure partial downstream flow, by using a bypass pipe to allow some flow to go below the pond. Adding city water to the stream during dam filling is also an option that will be evaluated at that time.

Deepening of the ponds should not impact water rights. Once they are dredged the ponds will be similar to the original contour found when water rights were granted in 1955. If the ponds are further deepened the city will apply for additional water rights. However, consumptive use or water evaporation will not change in the flow-through pond system.

The Frog Ponds are located outside of the mapped floodplain in Lewistown, MT. Designated floodplains will not be altered by this project. Appendix 8 shows the mapped floodplain in relation to the project site.

#### **6.4 Vegetation including Wetlands**

The perimeters of both ponds have become artificial wetlands. Bill Berg, USFWS, Charles M. Russell National Wildlife Refuge analyzed the wetlands associated with these ponds in October 2001. The ponds total about 1.75 acres with includes about 0.27 acres of cattail fringe (Appendix 4). According to Mr. Berg, periodic dredging of this type of artificial wetland increases both plant and wildlife productivity. The temporary disturbance of these wetlands can be considered a benefit. A Federal Clean Water Act Permit (404 permit) will not be needed for this project (Appendix 9).

According to Ted Hawn of the federal Natural Resource and Conservation Service there are no prime farmlands in the project area (Appendix 10).

Weed control will be necessary in conjunction with seeding with native grass seed mix to stabilize fill material that will not be used elsewhere.

#### **6.5 Physical Environment Fish and Wildlife**

Once the ponds are dredged and filled, trout will be stocked by the MFWP. Brook trout, fathead minnows, longnose dace, northern redbelly dace and white suckers were found during electrofishing of Little Casino Creek in the vicinity of the ponds in 2000 - 2001. Rainbow trout were stocked annually in the ponds from 1954 - 1971 (MFWP 1999). Re-introduction of trout into the ponds will likely reduce the number of fathead minnows in the reservoirs. Rainbow trout are common in Big Spring Creek and have access to Little Casino Creek below the dams.

In the past year, use at the Frog Pond Park has increased dramatically with the construction of the Chokecherry Walking Trail. It is unlikely that additional use by anglers at the ponds will increase stress on wildlife.

There are no resident threatened and endangered species known from this area (Appendix 11). Bald Eagles often migrate through the area but it is highly unlikely that there will be impacts to any federally listed species (Appendix 12).

#### **6.6 Human Environment – Noise/Electrical Effect**

Construction will cause short-term noise impacts on the area under all but the no action alternative. Noise impacts can be mitigated to some degree by requiring the construction equipment to have mufflers in good operating condition.



## **6.7 Human Environment – Community Impact**

During construction parts of the Frog Pond trail system will be closed. The trail is a major walking route between schools. Construction is planned when school is not in session. Construction delays would make it necessary for an alternative route to be used.

## **6.8 Human Environment Aesthetics/Recreation**

The project will improve recreation at the site, by creating an urban fishery.

## **6.9 Human Environment Cultural/Historical Resources**

MFWP believes that cultural/historic resources will not be impacted by this project (SHPO letter in Appendix 3).

## **6.10 Human Environment Summary Evaluation of Significance**

The public has been informed of the project by newspaper via articles and a public meeting. To date there appears to be little controversy and several folks are excited that fishing opportunities will once again be available at the frog ponds.

Permits needed for water quality concerns are listed on page 14. A 404 permit will not be needed for this project because the area will not be filled (Appendix 9).

## **6.11 Summary of Environmental Consequence by Alternative**

The following table summarizes each alternative for the environmental consequences discussed above. The most critical resources were included in the table. The overall assessment shown at the bottom of the table gives an overall ranking of the alternatives.

+++	highly beneficial to a variety of resources
++	very beneficial
+	somewhat beneficial
0	no impact on the resources
-	Negative impacts, either short term or minor
--	Major temporary impacts or long term impacts

## 6.9 Summary of Environmental Consequences by Alternative

<b>Selected Environmental Resources</b>	<b>Alternative 1 Dry ponds and excavate (proposed)</b>	<b>Alternative 2 Hoe and bottom spoil</b>	<b>Alternative 3 Dredge and upland spoil</b>	<b>Alternative 4 No Action</b>
6.1 Topography on land	Spoil taken off-site 0	Altered appearance, bottom spoil -	Altered appearance Dam with fill, high maintenance --	No change 0
6.3 Water quality concerns	Some temporary construction impacts. -	Piping of water around project very minor construction impacts. 0	Downstream water reduced. Temporary Construction impacts likely. --	No change 0
6.4 Wetlands	Minor, temporary construction impact. Long term rise in productivity for both ponds. Can rejuvenate with drawdown from new pipe +++	Minor, temporary construction impact. Long term rise in productivity for both ponds. ++	Minor, temporary construction impact. Long term rise in productivity for both ponds ++	No change Productivity of wetlands would continue to decline. -
6.5 Fish/Wildlife	Deepen ponds up to 8 – 9 feet. Wildlife benefits with regeneration of wetlands. Likely to overwinter fish. +++	Deepen ponds up to 8 feet. Wildlife benefits with regeneration of wetlands. Likely to overwinter fish. +++	Deepen ponds up to 8 feet. Wildlife benefits with regeneration of wetlands. Likely to overwinter fish. +++	Continue to fill in, deterioration of productive wetland -
6.6 Water	Replace outlet structure +	No change in structure 0	No change in structure 0	No change in structure 0
6.2,6.6 Construction effects, noise, odor etc	Ponds left dry for several months. Short construction time. Less odor -	Noise and odor during construction less than one month. -	Limited noise but odors for 5 – 6 weeks -	No change 0
6.8 Recreation	Two ponds stocked, slow siltation Impacts to trail less than other options. +++	Two ponds stocked. Slow siltation. Impacts to trail ++	Two ponds stocked. Slow siltation. Impacts to trail ++	No pond fishing -
Overall Assessment	<b>8</b>	<b>5</b>	<b>2</b>	<b>- 3</b>

## **7.0 Summary and Recommendations**

Transfer of ownership of the Frog Pond Park to the City of Lewistown and availability of funds to dredge the ponds can provide a great recreational benefit to the City of Lewistown. Several methods were looked at by DJ Engineering in their feasibility study, however due to concern with placement of wet sediment on the Frog Pond property an additional option, drying out the ponds, was determined by the City Park Board to be the best option.

Three alternatives (plus no action) were looked at in this report. Drying out the ponds and using conventional equipment for the work is deemed to be the best option and most economical option.

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## **9.0 References**

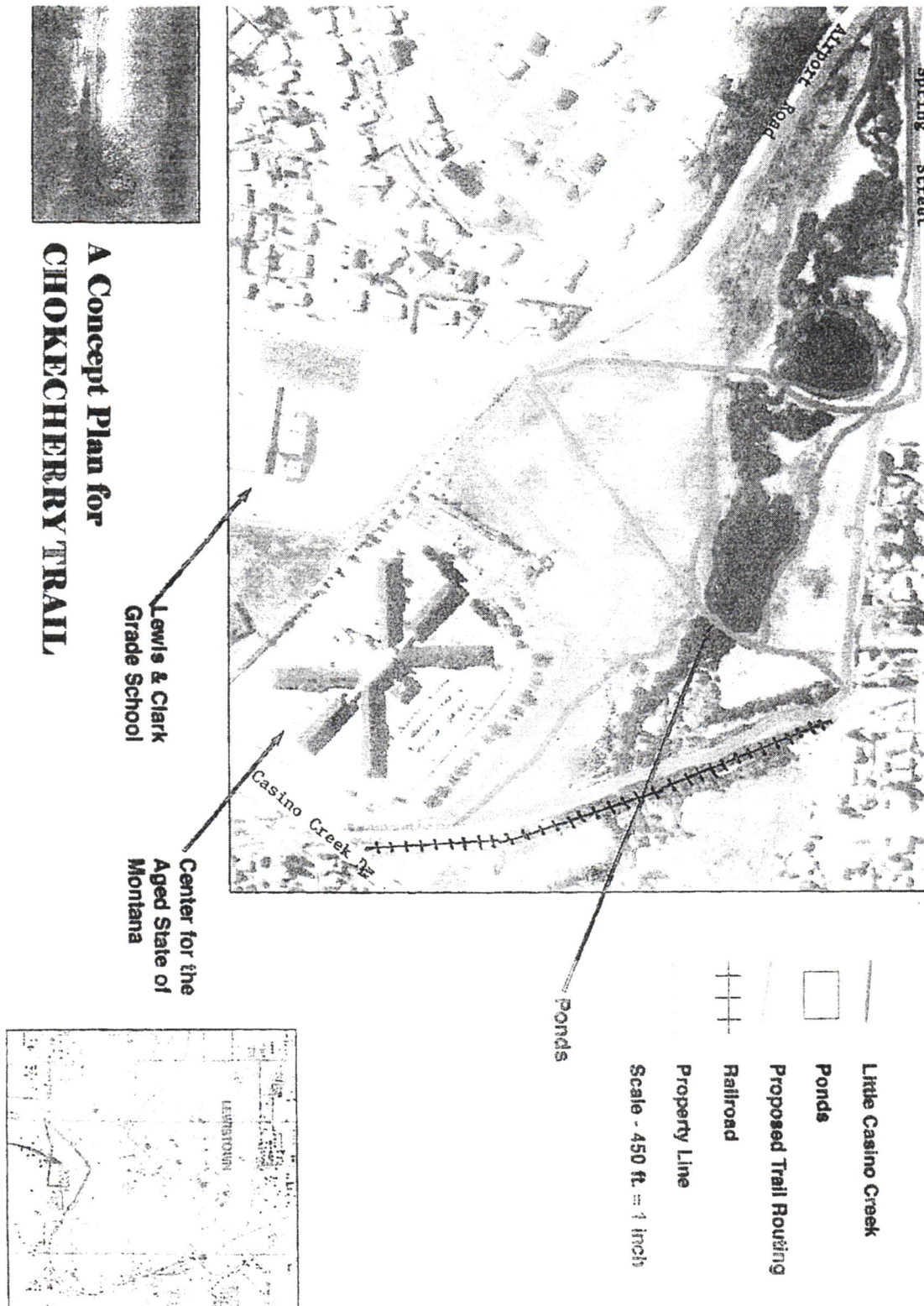
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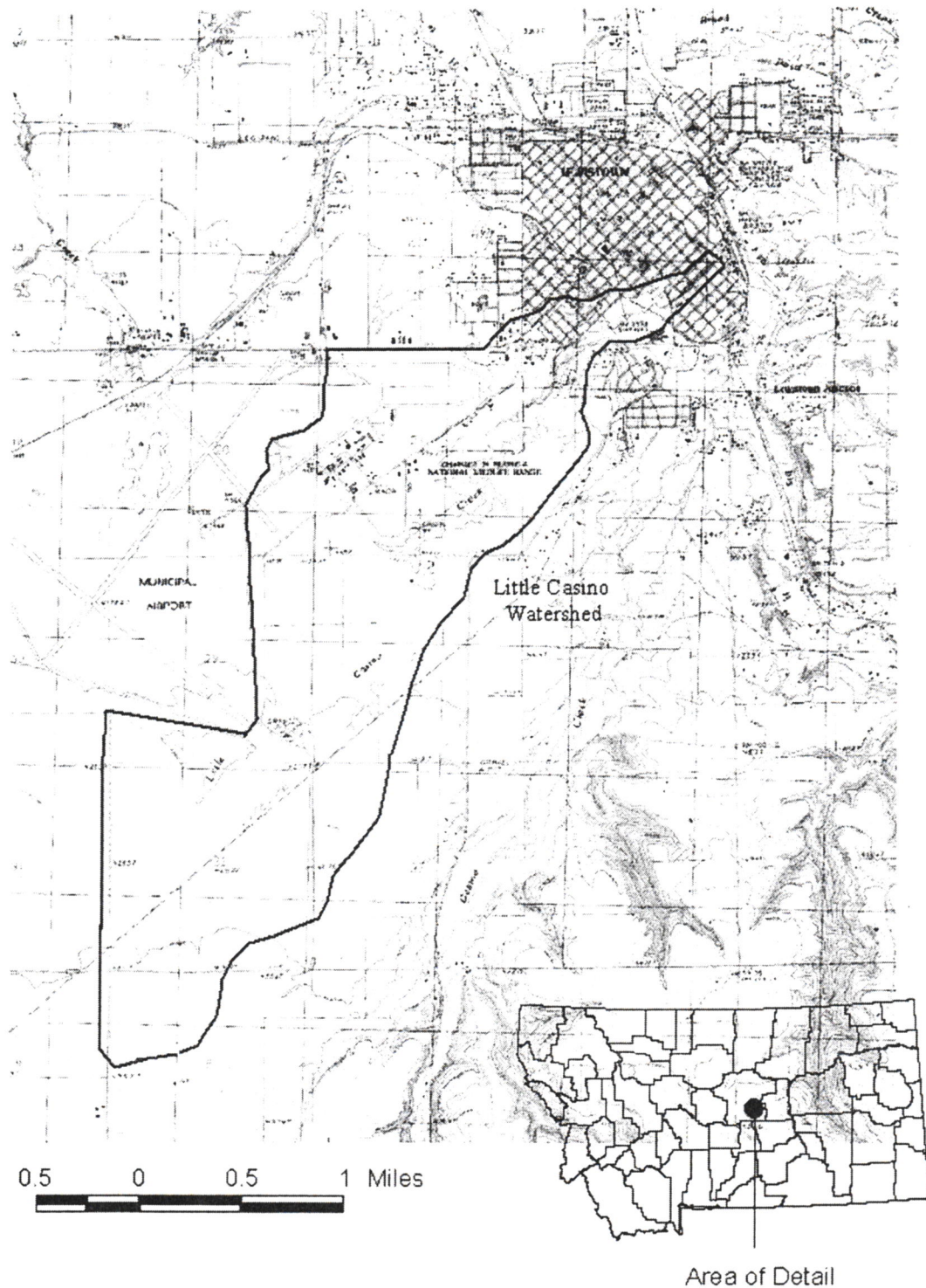


Appendix 10.1 Map of Frog Pond and Chokecherry Trail System





Appendix 2. Little Casino Creek Watershed



## Appendix 10.5 Description of the preferred alternative

The ponds will be worked on in consecutive years, contingent on available funding. About 1 – 2 months prior to construction the pond will be drained to dry out the silt in the pond, which should make excavation easier. Dewatering will begin in May and June, with construction occurring between July 15 and September 1.

- 1) Remove stop logs on current structure to drain pond (1 – 2 months prior to construction).
- 2) Remove structure (1 – 2 months prior to construction).
- 3) Install temporary culvert (1 – 2 months prior to construction).
- 4) Remove of two culverts in spillway
- 5) Fill, re-route and grade emergency spillway. This may require raising the trail.
- 6) Creek will be routed around project during construction.
- 7) Remove 1500 – 6000 cubic yards of material from pond. Primarily silt
- 8) Haul material to city compost site.
- 9) Purchase and install new structure at grade (Agri Drain Inline Water Control Structure)
  - a. Pipe size 24", with a 31" width, 39" depth and 8 foot high pipe.
- 10) Finish project to grade
- 11) Reconstruct and gravel trail to provide handicapped access to pond.
- 12) Create handicapped fishing access area by dam.
- 13) Disturbed ground will be seeded.
- 14) Refill pond.



## Appendix 10.11

### Endangered, Threatened, Proposed, Candidate Species, and Proposed Critical Habitat – List Updated November 8, 2001

#### MONTANA

<u>Status/Common Name</u> ( <u>Species name</u> )	<u>Range</u>
E – Black-footed Ferret ( <u>Mustela nigripes</u> )	Prairie-dog complexes; Eastern Montana
E – Gray Wolf ( <u>Canis lupus</u> )	Forests; Western Montana
T – Grizzly Bear ( <u>Ursus arctos horribilis</u> )	Alpine/subalpine coniferous forest; Western Montana
T – Canada Lynx ( <u>Lynx canadensis</u> )	(contiguous U.S. population) Western Montana – montane spruce/fir forest
C - Black-tailed Prairie Dog ( <u>Cynomys ludovicianus</u> )	Short grass prairie; Eastern Montana
E - Eskimo Curlew ( <u>Numenius borealis</u> )	Short grass prairie; migrant Statewide
E - Whooping Crane ( <u>Grus americana</u> )	Wetlands; migrant Statewide
E – Least Tern ( <u>Sterna antillarum</u> )	Yellowstone, Missouri Rivers sandbars, beaches; Eastern Montana
T - Bald Eagle ( <u>Haliaeetus leucocephalus</u> )	Forested riparian; Statewide
T - Piping Plover ( <u>Charadrius melodus</u> )	Missouri River sandbars, alkaline beaches; Northeastern Montana. <u>Proposed Critical Habitat:</u> Alkali lakes in Sheridan County; sandbar and reservoir shoreline in Garfield, McCone, Phillips, Richland, Roosevelt and Valley Counties
PT - Mountain Plover ( <u>Charadrius montanus</u> )	Eastern Montana - shortgrass prairie
C - Yellow-billed Cuckoo ( <u>Coccyzus americanus</u> )	Wetlands and riparian ecosystems; migrant Statewide.
E - Pallid Sturgeon ( <u>Scaphirhynchus albus</u> )	Bottom dwelling; Yellowstone, Missouri Rivers
E - White Sturgeon ( <u>Acipenser transmontanus</u> )	(Kootenai River population) -- Bottom dwelling; Kootenai River
T - Bull Trout ( <u>Salvelinus confluentus</u> )	(Columbia River Basin and St. Mary – Belly River populations) West of Continental Divide in Clark Fork, Flathead, Kootenai River basins; East of Continental Divide in Glacier National Park and

Blackfoot Indian Reservation – cold water rivers and lakes

C - Sturgeon Chub  
(*Hybopsis gelida*)

Lower Yellowstone, Powder and Missouri Rivers

C - Sicklefin Chub  
(*Hybopsis meeki*)

Yellowstone and Lower Missouri Rivers

C - Arctic Grayling  
(*Thymallus arcticus*)

(Fluvial population) Southwest Montana - Big Hole River

C - Warm Spring Zaitzevian  
Riffle Beetle  
(*Zaitzevia thermae*)

Gallatin County - warm springs

T - Water Howella  
(*Howella aquatilis*)

Wetlands; Swan Valley, Lake and Missoula Counties-

T - Ute Ladies'-tresses  
(*Spiranthes diluvialis*)

River meander wetlands; Jefferson, Madison, Beaverhead and Gallatin  
Counties

T - Spalding's Catchfly  
(*Silene spaldingii*)

Upper Flathead River drainage and Tobacco Valley – open grasslands  
with rough fescue or bluebunch wheatgrass

C - Slender Moonwort  
(*Botrychium lineare*)

Montane and glacier meadows; Glacier National Park

## Status

E – Endangered

T – Threatened

PE - Proposed Endangered

PT - Proposed Threatened

C – Candidate

T&E P&C list MT.doc  
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